Straw Rocket

Create a rocket that's powered by your breath!

Kit contains:

- 1 rocket template
- 1 square of colored paper
- 1 straw

You will need: scissors, tape, a pencil, and coloring supplies.

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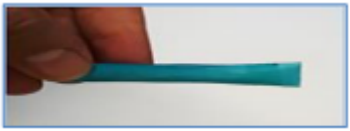
INSTRUCTIONS

(1) Color your rocket, then cut it out.

(2) Roll the paper around the pencil to make a tube, then tape it down the long side.

(3) Slide the tube off the pencil. Flatten one end of the paper tube and seal that flattened end with tape. Make sure it is sealed well!



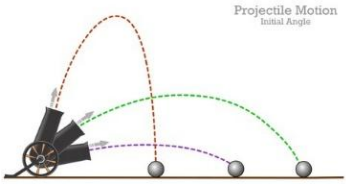
(4) Tape the paper tube to the back of your rocket with the at the top (open end at the bottom).

(5) Put the straw into the paper tube. Your rocket is ready for takeoff! Blow through the straw to launch your rocket! (If your rocket doesn't launch, try adding some more tape to the flattened end of the tube.)

You can measure to see how far you can get your rocket to fly. One way to control how far your rocket goes is by controlling the **thrust**. Thrust is a force that's created by pushing gas/air in one direction, causing a reaction force in the opposite direction, which makes the object move (based on Newton's Third Law of Motion). Your rocket uses the air from your lungs as the initial force, and depending on how much air you blow, you can create a small or large force. Real rockets use large amounts of hot exhaust created by fuel to push them forward.

This picture shows the Artemis II rocket that went around the moon in April.

Another way to control how far you can make your rocket fly is by adjusting the **trajectory**. Trajectory is the curved path an object takes as it moves. By changing the angle that you hold the straw and rocket at when you blow into it, you can make your rocket fly higher or farther.



BOOKS TO LEARN MORE

- *How Rockets Reach Space* by Arnold Ringstad
- *Blast Off!: How Mary Sherman Morgan Fueled America into Space* by Suzanne Slade
- *Go for the Moon* by Chris Gall
- *Space Exploration: It IS Rocket Science* by Dan Green
- *Spaceships and Rockets* by Deborah Lock
- *This Rocket* by Paul Collicut

Source: https://buggyandbuddy.com/straw-rockets-with-free-rocket-template/